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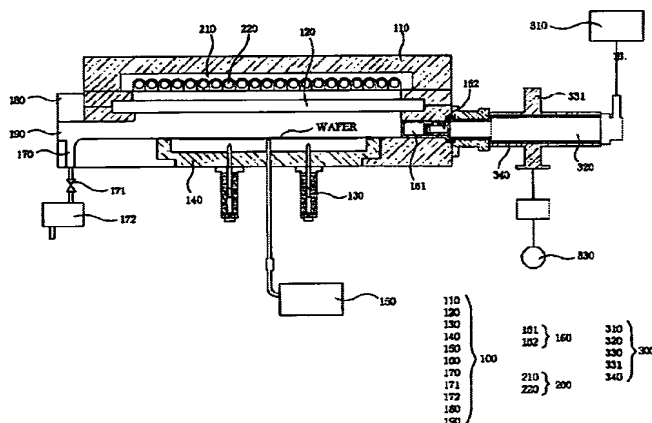
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(54) Title: **PLASMA RAPID THERMAL PROCESS APPARATUS IN WHICH SUPPLY PART OF RADICAL SOURCE IS IMPROVED**



(57) **Abstract:** Disclosed is a plasma rapid thermal process apparatus having an improved plasma supply port for supplying atomic radicals to a rapid thermal process chamber. The supply port includes an inner tube and an outer tube. The inner tube has one end which is opened and connected to the discharge tube and the other end which is closed. The diameter of a closed portion of the other end is smaller than those of other portions of the other end. A first spray hole is formed around a side wall of the closed portion. The outer tube has one end which is opened such that the closed portion of the inner tube is inserted in the one end, and the other end at which a plurality of second spray holes is formed. The other end of the outer tube is spaced apart by a predetermined interval from the other closed end of the inner tube. With the improved supply port, it is possible to achieve a highly efficient and uniform thermal process with low thermal budget at low temperature.

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